

REMARKS/ARGUMENTS

Favorable reconsideration of this application, in light of the present amendments and following discussion, is respectfully requested.

Claims 1-25 are pending; Claims 1, 2, 5, and 15 are amended; Claims 24 and 25 are newly added; and no claims are cancelled herewith. It is respectfully submitted that no new matter is added by this amendment.

In the outstanding Office Action, Claims 1-6, 8, 9, 11, 15, 17, 22, and 23 were rejected under 35 U.S.C. § 102(b) as anticipated by Nakamura (European Patent Application EP 0854620); Claims 12-14, 16, 20, and 21 were allowed; and Claims 7, 10, 18, and 19 were objected to, but indicated as allowable.

Applicants acknowledge with appreciation the indication that Claims 12-14, 16, 20, and 21 are allowed and that Claims 7, 10, 18, and 19 contain allowable subject matter. New Claim 24 represents the subject matter of Claim 18 in independent form (as dependent on Claim 15). Claim 25 corresponds to dependent Claim 19. Accordingly, it is respectfully submitted that Claims 7, 10, 12-14, 16, 18-21, 24, and 25 are in condition for allowance.

At the outset, Applicants respectfully request acknowledgement of the Information Disclosure Statement filed December 3, 2002. Copies of the papers as filed, including the date-stamped filing receipt, are enclosed herewith for the Examiner's consideration.

Additionally, Applicants thank Examiner Shew for the telephone interview granted Applicants' representative on October 27, 2005. During the interview, the outstanding rejections were discussed with regard to the references of record.

In more detail, as discussed during the interview, the outstanding rejection of Claims 1-6, 8, 9, 11, 15, 17, 22, and 23 under 35 U.S.C. § 102(b) as anticipated by Nakamura is respectfully traversed.

As described in the specification and illustrated, for example, in Figures 4(c)-4(e) of the specification, varying degrees of correlation may occur in an interval. The varying degrees of correlation are illustrated in Figure 4(e) and occur within the overlap of the intervals represented in Figures 4(c) and 4(d). According to the claimed invention, these variations and correlations are tracked.¹

To this end, Claim 1 recites, in part, “determining respective degrees of correlation in each of plural sub-intervals within said interval, detecting a sub-interval within which a maximum degree of correlation occurs, and providing a synchronisation pulse within the detected sub-interval.”

Nakamura relates to a demodulating apparatus for OFDM signals. However, Nakamura does not teach tracking the changes in the extent of correlation. According to Nakamura, there is an interval within which a high degree of correlation occurs. The beginning and end of this interval are ignored, and correlation is only measured with a center part of the high correlation period as indicated in Figures 6A to 6F of Nakamura. During the period in Nakamura in which the correlation is measured, an integrated output signal is produced, as shown in Figure 6F.

As illustrated in Figure 6F of Nakamura, the integrated signal rises monotonically from the beginning to the end of the period in which correlation is measured. Therefore, according to Nakamura, the peak will always occur at the end of the correlation measurement period.

However, Nakamura does not indicate any varying degrees of correlation in the signal of Fig. 6F. Rather, the signal of Figure 6F of Nakamura illustrates the accumulated extent of correlation. In fact, the current level of correlation cannot be determined from the signal of Figure 6F of Nakamura. In more detail, if the level of correlation were to fall in Nakamura

¹ See, e.g., page 11, line 24 – page 12, line 4 and Figure 7.

for a brief period, the output signal of Figure 6F would not decrease in value, but would instead simply continue to increase (by contrast, Figure 4e of the present specification illustrates a corresponding decrease when an amount of correlation falls). As Nakamura fails to teach tracking varying degrees of correlation, Nakamura does not teach determining respective degrees of correlation in each of plural sub-intervals within said interval, detecting a sub-interval within which a maximum degree of correlation occurs, and providing a synchronisation pulse within the detected sub-interval.

In short, because the synchronisation pulse of Nakamura is derived from the waveform of Figure 6F, and the waveform of Figure 6F does not disclose or suggest varying degrees of correlation, Nakamura clearly does not disclose or suggest the method of Claim 1.

With respect to independent Claim 15, this claim recites, in part, “adjusting the timing of the synchronisation pulse in units of multiple sample periods.” A non-limiting example is illustrated in Figure 7 and described at pages 13-14 of the specification.

According to Nakamura, a timing adjustment is based on the average of the calculated timings for the time synchronisation signals of multiple symbols. In Nakamura, there is no restriction on the adjustment of this timing. In particular, Nakamura does not disclose or suggest restricting timing adjustment to units of multiple sample periods, as recited in Claim 15.

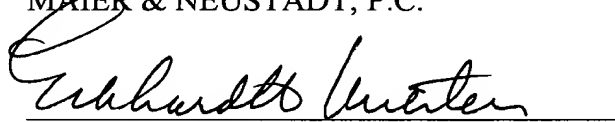
The outstanding Office Action cites to col. 10, lines 6-26 of Nakamura as the basis of the rejection. However, the cited portion refers to the fact that the timing synchronisation is averaged over a predetermined number of symbols. In fact, the cited portion does not address whether or not the amount of adjustment may be restricted. Accordingly, it is respectfully submitted that Nakamura fails to disclose or suggest adjusting the timing of the synchronization pulse in units of multiple sample periods, as recited in Claim 15.

Therefore, as Nakamura does not disclose or suggest the features of independent Claims 1 and 15, from which Claims 2-6, 8, 9, 11, 17, 22, and 23 depend, it is respectfully submitted that Nakamura does not provide a *prima facie* case of anticipation with regard to these claims. It is therefore respectfully requested that this rejection be withdrawn.²

Consequently, in view of the foregoing discussion and present amendments, it is respectfully submitted that this application is in condition for allowance. An early and favorable action is therefore respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Eckhard H. Kuesters
Attorney of Record
Registration No. 28,870

Customer Number

22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)

I:\ATTY\EHK\AMEND-RESPONSES\0039\20s\206094US-AM.DOC

² Applicants note that Claim 17 was rejected under 35 U.S.C. § 102(b). However, Claim 17 is a multiple dependent claim depending from Claims 1, 12, 13, and 15. Because Claims 12 and 13 have been indicated as allowable, the present response addresses the rejection of Claim 17 as dependent on Claims 1 and 15 only.